

### **REMARKS/ARGUMENTS**

Reconsideration of this application, in view of the foregoing amendment and the following remarks and arguments, is respectfully requested.

Claims 1-29 were originally presented for consideration in this application, and the Examiner's indication that Claims 9, 23-25, 27 and 28 contain patentable subject matter is noted with appreciation. By the foregoing amendment, Claims 11 and 26 have been revised. Accordingly, Claims 1-29 remain in this application for consideration and allowance.

Claims 1-8, 10-22, 26 and 29 currently stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 6,164,333 to Murphy et al. This rejection is respectfully traversed for the following reasons.

Via independent Claims 1 and 15, each of applicants' rejected Claims 1-8, 10 and 15-22 sets forth a convective heat trap structure having a tubular body extending along an axis, and first and second axially spaced apart resilient flapper structures carried by said body and having portions transversely extending across the interior of said body, said flapper structure portions being axially deflectable **about circumferentially offset hinge locations** adjacent the interior side surface of said body.

This claimed circumferentially offset hinge locations for two axially spaced apart heat trap flapper elements uniquely creates a **serpentine** convective fluid flow through the tubular body, as may be seen in FIGS 2 and 6 of applicants' drawings and described in their specification beginning on line 25 of page 8 thereof, to provide in a novel manner a desirably increased convective flow resistance through the heat trap during, for example, standby periods of a water heater in which the heat trap is installed.

In contrast, each of the heat trap embodiments shown in the Murphy et al reference has only a **single** flapper member and does not disclose or in any manner suggest **two** axially spaced apart flapper members which are axially deflectable about **circumferentially offset hinge locations**. Accordingly, none of applicants' Claims 1-8, 10 and 15-22 is rendered obvious by Murphy et al. Additionally, objected-to Claims 9 and 23-25 which depend from Claims 1 and 15 are seen to be in a condition for allowance in their present form.

Via amended independent Claims 11 and 26, each of applicants' rejected Claims 11, 12 and 26 set forth a heat trap structure having a tubular body and first and second axially spaced apart flapper portions defining axially spaced apart, circumferentially extending first and second gaps between the flapper portions and the interior surface of the tubular body, the first and second gaps being **circumferentially offset from one another**. The Murphy et al reference clearly fails to disclose or suggest this claimed feature of applicants' invention.

Specifically, the Murphy et al reference fails to disclose or suggest two axially spaced apart flapper structures, let alone two axially spaced apart flapper structures having this recited relative gap orientation. As previously discussed herein, this circumferential gap offset provides the serpentine convective fluid flow described in applicants' specification and shown in FIGS. 2 and 6 of their drawings. Accordingly, none of applicants' Claims 11, 12 and 26 is rendered obvious by Murphy et al. Additionally, objected-to Claims 27 and 28 which depend from Claim 26 are seen to be in a condition for allowance in their present form.

Via independent Claims 13 and 29, each of applicant's rejected Claims 13, 14 and 29 sets forth a convective heat trap structure having a tubular body having a slot extending radially inwardly through a side wall portion thereof into its interior; a generally tubular exterior resilient seal coaxially extending around said tubular body over said slot; and a **resilient flapper**

**structure** transversely extending across the interior of said body and being connected to said seal through said slot, **said resilient flapper structure having a flat configuration with an axial thickness substantially less than the axial length of said seal.**

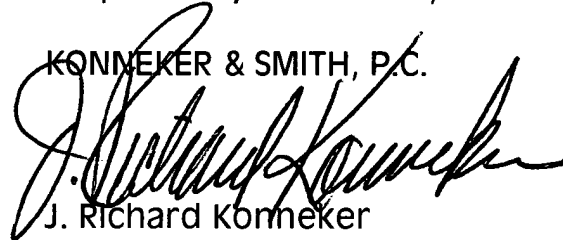
Representatively, but not by way of limitation, this claimed combination seal/flapper structure is shown in applicants' FIG. 8 in which the flat flapper member 82 extends through the slot 84 in the tubular body 78 and is connected to the tubular exterior seal 80 which has an axial (i.e., vertical) length substantially greater than the axial thickness of the flapper structure 82. Quite clearly, the flapper structure shown in the Murphy et al reference does not meet these limitations. Specifically, as may clearly be seen in FIG. 6 of Murphy et al, the flapper section 36 has an axial thickness **identical** to that of the outer ring section 38, and the outer ring section is not a seal member that extends **over** a slot formed in the tubular body on which the Murphy et al flapper structure is installed. It is thus respectfully submitted that none of applicants' Claims 13, 14 and 29 is rendered obvious by Murphy et al.

In view of the foregoing amendment, remarks and arguments, all of the claims currently pending in this application are now seen to be in a condition for allowance. A Notice of Allowance of Claims 1-29 is therefore earnestly solicited.

The Examiner is hereby requested to telephone the undersigned attorney of record at 972/516-0030 if such would further or expedite the prosecution of the instant application.

Respectfully submitted,

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on

January 15, 2004  
Deane Sutton